

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (original) A medical method for detecting and treating inadequate tissue perfusion of a patient, comprising:
 - providing a sensor for measuring an intravascular blood parameter;
 - positioning the sensor on a portion of the patient's vasculature;
 - measuring the intravascular parameter using the sensor;
 - detecting inadequate tissue perfusion based on the intravascular parameter measured by the sensor;
 - delivering a stimulus to increase tissue perfusion as a function of the measured intravascular parameter.
2. (original) A medical method as in claim 1, wherein the sensor measures blood pressure, and wherein the sensor is positioned on a blood vessel.
3. (original) A medical method as in claim 2, wherein the sensor includes a transducer and a catheter, wherein the catheter extends through a wall and inside a lumen of the blood vessel and the transducer resides outside the blood vessel.
4. (withdrawn) A medical method as in claim 1, wherein the sensor measures blood flow rate, and wherein the sensor is positioned on a blood vessel.
5. (original) A medical method as in claim 1, wherein the sensor is positioned on an artery.
6. (withdrawn) A medical method as in claim 1, wherein the sensor is positioned on an vein.

7. (withdrawn) A medical method for detecting and treating inadequate tissue perfusion of a patient, comprising:

providing a sensor for measuring intracardiac pressure;
positioning the sensor in or on the patient's heart;
measuring intracardiac pressure of the left side of the patient's heart using the sensor;

detecting inadequate tissue perfusion based on the intracardiac pressure measurement;

delivering a stimulus to increase tissue perfusion as a function of the intracardiac pressure measurement.

8. (withdrawn) A medical method as in claim 7, wherein the measured intracardiac pressure comprises left atrial pressure.

9. (withdrawn) A medical method as in claim 7, wherein the measured intracardiac pressure comprises left ventricular pressure.

10. (withdrawn) A medical method as in claim 7, wherein the sensor is positioned on a chamber wall.

11. (withdrawn) A medical method as in claim 10, wherein the chamber wall comprises a septal wall.

12. (withdrawn) A medical method as in claim 10, wherein the chamber wall comprises a free wall.

13. (withdrawn) A medical method as in claim 10, wherein the sensor includes a transducer and a catheter, wherein the catheter extends through the chamber wall into a cardiac chamber and the transducer resides outside the chamber.

14. (withdrawn) A medical method as in claim 13, wherein the sensor is connected to a pacing electrode and the pacing electrode contacts the chamber wall.

15. (original) A medical method for detecting and treating inadequate tissue perfusion of a patient, comprising:

- providing a sensor for measuring tissue perfusion;
- providing a therapeutic device for delivering a stimulus to increase tissue perfusion;
- positioning the sensor in the patient remote from the therapeutic device;
- measuring tissue perfusion using the sensor;
- detecting inadequate tissue perfusion based on the tissue perfusion measurement; and
- delivering a stimulus to increase tissue perfusion as a function of the tissue perfusion measurement.

16. (withdrawn) A medical method as in claim 15, wherein the sensor is positioned adjacent vascularized tissue and measures blood flow in the vascularized tissue.

17. (withdrawn) A medical method as in claim 16, wherein the sensor measures blood flow in capillaries in the vascularized tissue.

18. (original) A medical method for treating a patient, comprising:

- detecting heart rate as an indicator of inadequate tissue perfusion;
- detecting at least one other indicia of inadequate tissue perfusion;
- delivering a stimulus to increase tissue perfusion as a function of both heart rate and the at least one other indicia.

19. (original) A medical method as in claim 18, further comprising providing a therapeutic device for delivering the stimulus to increase tissue perfusion.

20. (original) A medical method as in claim 19, wherein the step of delivering the stimulus comprises delivering a stimulus to increase heart rate.

21. (original) A medical method as in claim 20, wherein the step of providing a therapeutic device comprises providing a pacemaker, and wherein the step of delivering the stimulus to increase heart rate comprises delivering electrical impulses to the patient's heart.

22. (withdrawn) A medical method as in claim 20, wherein the step of providing a therapeutic device comprises providing an infusion pump, and wherein the step of delivering the stimulus to increase heart rate comprises delivering a bolus of a drug.

23. (original) A medical method as in claim 20, wherein the step of detecting at least one other indicia of inadequate tissue perfusion comprises detecting blood pressure.

24. (original) A medical method as in claim 23, wherein the step of detecting blood pressure comprises detecting vascular blood pressure.

25. (withdrawn) A medical method as in claim 23, wherein the step of detecting blood pressure comprises detecting intracardiac blood pressure.

26. (withdrawn) A medical method as in claim 20, wherein the step of detecting at least one other indicia of inadequate tissue perfusion comprises detecting blood flow.

27. (withdrawn) A medical method as in claim 26, wherein the step of detecting blood flow comprises detecting vascular blood flow.

28. (original) A medical method as in claim 20, wherein the step of detecting at least one other indicia of inadequate tissue perfusion comprises detecting blood perfusion in tissue.

29. (original) A medical method as in claim 28, wherein the step of detecting blood perfusion in tissue comprises detecting blood perfusion in tissue in the patient's upper body.

30. (original) A medical method as in claim 28, wherein the step of detecting blood perfusion in tissue comprises detecting blood perfusion in tissue in the patient's chest.

31. (withdrawn) A medical method as in claim 28, wherein the step of detecting blood perfusion in tissue comprises detecting blood perfusion in tissue in the patient's head or neck.

32. (original) A medical method, comprising:
providing an implantable therapeutic device (ITD) configured to deliver a stimulus to increase heart rate;
providing an implantable pressure sensing device (PSD) including a hermetically sealed housing, a pressure transducer disposed in the housing, a pressure transmission catheter (PTC) having a proximal end, a distal end, and a lumen extending therethrough, with the proximal end of the PTC connected to the housing and the lumen of the PTC in fluid communication with the pressure transducer;
implanting the ITD in a patient;
implanting the PSD in the patient such that the distal end of the PTC resides in a vascular lumen and the housing remains outside the vascular lumen;
connecting the PSD to the ITD via an electrical lead; and
operating the ITD to deliver the stimulus to increase heart rate in response to a drop in blood pressure as measured by the PSD.

33. (original) A method as in claim 32, wherein the pressure transducer of the PSD converts a pressure signal to an electrical signal, and wherein the ITD includes a signal processor which evaluates the electrical signal for hypotension.

34. (original) A method as in claim 33, wherein the lumen of the PTC is filled with a fluid and a barrier is disposed in a distal end of the PTC lumen to contain the fluid while permitting pressure to be transferred therethrough.

35. (original) A method as in claim 32, wherein the ITD delivers an electrical stimulus.

36. (withdrawn) A method as in claim 32, wherein the ITD delivers a pharmacological stimulus.